AMENDMENTS TO THE SPECIFICATION

Please replace the following paragraphs of the specification.

Please introduce the following section underneath the title.

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority under 35 USC § 119 to PCT Application No. PCT/SE2004/001418, filed on October 4, 2004, and Swedish Application No. 0302599-6, filed on October 2, 2003, in the Swedish Patent and Registration Office (PRV), the entire contents of which are incorporated herein by reference.

Please introduce the following section on page 4, line 32:

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a light microscope photography illustrating a conventional implant comprising islets of Langerhans embedded in an alginate barrier, which implant is in a transplanted state;

Fig. 2 is a light microscope photography illustrating an implant with a semipermeable barrier coated on one side with a titanium coating according to example embodiments;

Fig. 3 is a photography illustrating a semipermeable barrier of cellulose coated with titanium using an evaporation technique according to example embodiments;

Fig. 4a is a light microscope photography of a semipermeable membrane TF-200 without any coating;

Fig. 4b is a light microscope photography of a semipermeable membrane TF-200 coated with one titanium layer dry;

Fig. 4c is a light microscope photography of a semipermeable membrane TF-200 coated with one titanium layer wet;

Fig. 5a is a light microscope photography of a semipermeable membrane Versapor® 200 without any coating;

Fig. 5b is a light microscope photography of a semipermeable membrane Versapor® 200 coated with one titanium layer dry;

Fig. 5c is a light microscope photography of a semipermeable membrane Versapor® 200 coated with one titanium layer wet;

Fig. 6a schematically illustrates the set-up of a dialysis performance test;

Fig. 6b is a diagram comparing dialysis of glucose through a Versapor® 200 membrane with or without titanium coating;

Fig. 6c is a diagram comparing dialysis of protein through a Versapor® 200 membrane with or without titanium coating;

Fig. 6d is a diagram comparing dialysis of IgG through a Versapor® 200 membrane with or without titanium coating;

Fig. 7a is a diagram comparing dialysis of glucose through a HT 200 membrane with or without titanium coating;

Fig. 7b is a diagram comparing dialysis of protein through a HT 200 membrane with or without titanium coating;

Fig. 7c is a diagram comparing dialysis of IgG through a HT 200 membrane with or without titanium coating;

Fig. 8a is a schematic illustration of a TheraCyte™ device;

Fig. 8b is a light microscopy photography of a TheraCyte™ device without any titanium coating;

Fig. 8c is a light microscopy photography of a TheraCyte™ device with one titanium layer;

Fig. 8d is a light microscopy photography of a TheraCyte™ device with two titanium layers;

Figs. 8e, 8h, 8k are magnifications of the TheraCyte™ device illustrated in Fig. 8b;

Figs. 8f, 8i, 8l are magnifications of the TheraCyte™ device illustrated in Fig. 8c;

Figs. 8g, 8j, 8m are magnifications of the TheraCyte™ device illustrated in Fig. 8d;

Fig. 8n is a diagram illustrating dialysis of glucose from a TheraCyte™ device with no titanium coating (K) or with 1-5 or 10 titanium layers coated onto the device;

Fig. 8o is a diagram illustrating dialysis of insulin from a TheraCyte™ device with no titanium coating (control) or with 1-5 or 10 titanium layers coated onto the device;

Figs. 8p-8s illustrate TheraCyte™ devices with two titanium layers (top, Fig. 8p), no titanium coating (middle, Fig. 8r) or a single titanium layer (bottom, Fig. 8s) after 17 days of implantation in male LEWIS rats;

Fig. 8t is cross-sectional view of the control TheraCyte™ device illustrated in Fig. 8r;

Fig. 8u is cross-sectional view of the TheraCyte™ device with a single titanium layer illustrated in Fig. 8s;

Fig. 8v is cross-sectional view of the TheraCyte™ device with two titanium layers illustrated in Fig. 8p;

Fig. 9a is a diagram illustrating measured radioactivity from blood drawn from mice having implanted TheraCyte™ devices into which ^{14}C-glucose was injected 41 days after implantation, closed circles represent devices with no titanium coating and open circles represent devices with a titanium coating;

Fig. 9b is a diagram illustrating measured glucose concentration from blood drawn from mice having implanted TheraCyte™ devices into which ^{14}C-glucose was injected 41 days after implantation, closed circles represent devices with no titanium coating and open circles represent devices with a titanium coating; and

Fig. 10 is an electron microscopy image of an implanted titanium-coated TheraCyte™ device in 115000 magnification.

Please move the following section from page 4, lines 32-page 5, line 18 to page 7, line 33:

EXAMPLE 1

The difference in terms of connective tissue growth in connection with an implant of a semipermeable barrier without a bioactive metal coating and, according to the invention, with a bioactive metal coating is illustrated in Figs 1 and 2.

Fig. 1 is a light microscope photography illustrating a conventional implant, comprising the islets of Langerhans 1 embedded in an alginate barrier 2, which implant is in a transplanted state. The layer designated 3 is identified as connective tissue. The photography shows that the connective tissue 3 is positioned close to the implant, between the implant and the donee's tissue/blood vessel 4.

Fig. 2 shows an implant which consists of a conventional semipermeable barrier 2' which on one side is, according to the invention, coated with a titanium coating T. The component designated 4' is identified as a blood vessel. This is positioned close to the titanium coating T and even penetrates slightly into the coating. There is no connective tissue between the blood vessel and the barrier. There are hardly any blood vessels at all on the other side of the barrier, which has no titanium coating.

Please amend the following section on page 7, line 34:

EXAMPLE 2~~, Fig. 3~~

Please amend the following section on page 10, line 28-page 11, line 5.

The above TheraCyte™ device was studied before and after coating with one or two Ti-layers, using a LEICA M76 microscope with an external light source and a Nikon Eclipse E600 light microscope. No change in device-structure due to the Ti-coating procedure could be observed. Fig. 8b illustrates the device without modifi-

cation (no Ti-coating), Fig. 8c illustrates the device with one Ti-layer, and Fig. 8d illustrates the device with two Ti-layers. Figs ~~8e-8g~~ 8e, 8h, 8k illustrate the device without modification, Figs 8f, 8i, 8l illustrates the device with one Ti-layer and Figs 8g, 8j, 8m illustrates the device with two Ti-layers, respectively. ~~Figs 8h-8j illustrates the device without modification, with one Ti-layer and with two Ti-layers, respectively. Figs 8k-8m illustrate the device without modification, with one Ti-layer and with two Ti-layers, respectively.~~